

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions of claims in the application:

LISTING OF CLAIMS:

9. (CURRENTLY AMENDED) A method for fabricating a magnetoresistive (MR) read head comprising:

depositing a shield layer;

etching a recessed portion in an upper surface of the shield layer, the recessed portion of the shield layer defining a protruding portion of the shield layer;

depositing a first gap layer ~~on top of~~ above the recessed portion of the shield layer;

depositing a second gap layer ~~on top of~~ above the first gap layer and the protruding portion of the shield layer;

positioning an MR sensor ~~on top of~~ above the second gap layer in vertical alignment with the protruding portion of the shield layer;

positioning first and second lead layers ~~on top of~~ above the second gap layer, the first and second lead layers being connected to the MR sensor; and

~~depositing a third gap layer on top of the second gap layer, the MR sensor, and the first and second lead layers.~~

10. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein the first gap layer includes an upper surface substantially level with an upper surface of the protruding portion of the shield layer.

11. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein an upper surface of the second gap layer is planar.

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12. (CURRENTLY AMENDED) The method as recited in claim 9, further comprising depositing a third gap layer on top of the second gap layer, the MR sensor, wherein a combined thickness of the first gap layer, second gap layer, and third gap layer is thinner adjacent to the MR sensor and the protruding portion of the shield layer than the recessed portion of the shield layer.
13. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein the recessed portion of the shield layer is etched utilizing ion milling.
14. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein the recessed portion of the shield layer is etched utilizing reactive ion etching.
15. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein the recessed portion of the shield layer is etched utilizing wet etching.
20. (CURRENTLY AMENDED) A method for fabricating a magnetoresistive (MR) read head, the read head comprising:
  - a shield layer with a recessed portion and a protruding portion defined by the recessed portion, the recessed portion of the shield layer being formed by an etching process;
  - a first gap layer located on top of the recessed portion of the shield layer, the first gap layer including an upper surface substantially level with an upper surface of the protruding portion of the shield layer;
  - a second gap layer located on top of the first gap layer and the protruding portion of the shield layer, an upper surface of the second gap layer being planar;
  - an MR sensor located on top of the second gap layer in vertical alignment with the protruding portion of the shield layer;
  - first and second lead layers located on top of the second gap layer and connected to the MR sensor; and

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~~a third gap layer located on top of the MR sensor, the first and second lead layers, and the second gap layer;~~

~~wherein a combined thickness of the first gap layer, second gap layer, and third gap layer is thinner adjacent to the MR sensor and the protruding portion of the shield layer than the recessed portion of the shield layer.~~

21. (CURRENTLY AMENDED) The method as recited in claim 20, wherein the first gap layer~~[[,]]~~ and second gap layer, and third gap layer are constructed from alumina.
22. (CURRENTLY AMENDED) The method as recited in claim 20, wherein the first gap layer~~[[,]]~~ and second gap layer, and third gap layer are constructed from aluminum oxide.
23. (PREVIOUSLY PRESENTED) The method as recited in claim 20, wherein chemical-mechanical polishing is utilized to ensure that the upper surface of the first gap layer is substantially level with the upper surface of the protruding portion of the shield layer.
24. (PREVIOUSLY PRESENTED) The method as recited in claim 20, wherein a size of the protruding portion of the shield layer is slightly larger than a size of the MR sensor.
25. (PREVIOUSLY PRESENTED) The method as recited in claim 20, wherein the MR sensor is constructed from nickel iron.
26. (PREVIOUSLY PRESENTED) The method as recited in claim 20, wherein the first and second lead layers are constructed from copper.

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27. (CURRENTLY AMENDED) The method as recited in claim 20, further comprising depositing a third gap layer on top of the second gap layer, the MR sensor, wherein the combined thickness of the first gap layer, second gap layer, and third gap layer is thinner adjacent to the MR sensor and the protruding portion of the shield layer than the recessed portion of the shield layer in order to reduce the chance of a short occurring between the shield layer and the first and second lead layers.
28. (PREVIOUSLY PRESENTED) The method as recited in claim 20, wherein the upper surface of the second gap layer is planar to avoid detrimental ramifications of reflective notching.
29. (PREVIOUSLY PRESENTED) The method as recited in claim 20, wherein the upper surface of the second gap layer is planar to avoid detrimental ramifications of the swing curve effect.
30. (CURRENTLY AMENDED) The method as recited in claim 9, wherein the first gap layer[[,]] and second gap layer, ~~and third gap layer~~ are constructed from alumina.
31. (CURRENTLY AMENDED) The method as recited in claim 9, wherein the first gap layer[[,]] and second gap layer, ~~and third gap layer~~ are constructed from aluminum oxide.
32. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein chemical-mechanical polishing is utilized to ensure that an upper surface of the first gap layer is substantially level with an upper surface of the protruding portion of the shield layer.

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33. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein a size of the protruding portion of the shield layer is slightly larger than a size of the MR sensor.
34. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein the MR sensor is constructed from nickel iron.
35. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein the first and second lead layers are constructed from copper.
36. (CURRENTLY AMENDED) The method as recited in claim 9, further comprising depositing a third gap layer on top of the second gap layer, the MR sensor, wherein a combined thickness of the first gap layer, second gap layer, and third gap layer is thinner adjacent to the MR sensor and the protruding portion of the shield layer than the recessed portion of the shield layer in order to reduce the chance of a short occurring between the shield layer and the first and second lead layers.
37. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein an upper surface of the second gap layer is planar to avoid detrimental ramifications of reflective notching.
38. (PREVIOUSLY PRESENTED) The method as recited in claim 9, wherein an upper surface of the second gap layer is planar to avoid detrimental ramifications of the swing curve effect.

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